REMARKS

Claims 11-30 are pending. Claims 11-19, 21, and 24-30 are rejected under 35 USC 103(a) as being unpatentable over US patent 6,904,017 (Meempat et al.) in view of US patent publication 20020027885 (Ben-Ami). Claims 20, 22 and 23 are rejected under 35 USC 103(a) as being unpatentable over Meempat in view of Ben-Ami and US patent 6,788,646 (Fodor et al.).

Claims 11 and 26 are amended herein per par. 013, lines 1-3 of the substitute specification ("without explicit path reservation"). No new matter is added. Claims 11-30 are presented for examination. Claims 11, 26, and 28 are independent.

Response to rejections of claims 11-19, 21 and 24-30 under 35 USC 103(a):

1.   Meempat establishes explicit path reservations (col. 7, lines 21, 23: *"For each source-destination pair i (i∈1, . . . , U), a total of R $_i$ independent explicit MPLS paths are set up from the source edge router s(i) to the destination edge router d(i)."*)   Applicants do not establish explicit path reservations (par. 013, lines 1-3: *"The advantage of the invention is that in a network without explicit path reservation limits can be defined for access control in a balanced and resource-efficient way."*)

2.   Examiner cites "load balancing" in Meempat, as if this means Meempat uses the same method as Applicants. However, "load balancing" is a generic term for communications traffic optimization. Applicants teach a specific iterative method of load balancing. Meempat teaches a totally different method involving reserving and operationally analyzing individual paths (abstract lines 4-6). Examiner concedes on page 3, line 5 from bottom, that Meempat does not teach increasing a limit value.

3.   Ben-Ami teaches a totally different method of network optimization from both Applicants' method and Meempat's method. Firstly, the network of Ben-Ami FIG 2 is a circuit-switching network (par. 76, lines 4-5), unlike the packet switching networks of Applicants and Meempat. Secondly, Ben-Ami teaches physical network design and modification. He does not

iteratively adjust a limit value. Instead, he adds physical links or "edges" to a node <u>without</u> <u>expanding the capacity value of the node</u> (par. 12, par. 79. See in FIG 9 the addition of LNX9 and LNX10 compared with FIG 2). This is unrelated to the methods of Meempat or Applicants. Ben-Ami cannot be combined with Meempat without completely changing the principle of operation of one or both of them.

> MPEP 2143.01 VI. THE PROPOSED MODIFICATION CANNOT CHANGE
> THE PRINCIPLE OF OPERATION OF A REFERENCE
> If the proposed modification or combination of the prior art would change the
> principle of operation of the prior art invention being modified, then the teachings
> of the references are not sufficient to render the claims prima facie obvious. In re
> Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)

4.   Examiner has not shown how Ben-Ami could be combined with Meempat. They relate to different stages of a network implementation. Ben-Ami relates to installation and physical upgrades of circuits in a circuit-switched network. Meempat relates to load balancing in a packet-switched network.

5.   Even if Ben-Ami and Meempat were combined in some way, it would not meet the present claims. Examiner cites Ben-Ami paragraph 0159 as teaching reducing a threshold value on at least one pair of marginal nodes to the threshold value at the step before the congestion occurs. This is not found. Paragraph 0159 simply states that an assumption of standard network models is that the edges (links) connected to a switch do not have more capacity than the switch. This has nothing to do with increasing or reducing a threshold value. Ben-Ami increases the number of physical links connected to a switch to avoid congestion (see LNX9 and LN10 of FIG 9 as compared to FIG 2). He does not then reduce the number of physical links when congestion occurs. This would not make sense, since it would make congestion even worse.

6.   The whole idea of Ben-Ami is unrelated to the inventions of Applicants or Meempat. In Ben-Ami par. 177, lines 1-2: *"The idea proposed in this paper is to expand the capacity of channels beyond that of the switch."*

7.   Ben-Ami's method explicitly excludes raising limit values of nodes per par. 12, lines 12-18: *"The method includes expanding the capacity value of at least an individual communication edge from among the first plurality of communication edges, the individual edge connecting first and second communication nodes from among the second plurality of communication nodes, without expanding the capacity value of the first communication node."* This clearly teaches away from both the combination and the present invention.

Response to rejections of claims 20, 22 and 23 under 35 USC 103(a):

8.   Fodor does not address the issues and incompatibilities argued above, so the proposed combination does not meet the limitations of any claims herein.

Conclusion

M.P.E.P. 2143.03 provides that to establish prima facie obviousness of a claimed invention, all words in a claim must be considered in judging the patentability of that claim against the prior art. If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.

As argued above, the proposed combination of Meempat and Ben-Ami would change the principle of operation of one or both of them, and furthermore lacks features claimed in the independent claims herein. Ben-Ami explicitly teaches away from both the combination and the present invention. Fodor does not address these issues and incompatibilities. Thus the proposed combinations do not support the obviousness rejections of the claimed invention. Accordingly, Applicants respectfully request allowance of the present claims.

The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including fees for additional claims and terminal disclaimer fee, or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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